What is claimed is:

1. Method for the determination of the thickness of the insulation of a flat ribbon cable in the region of the metallic conductor paths, characterised in that one side of the flat ribbon cable is irradiated by means of an x-ray beam, and a detector on the same or on the opposing side of the flat ribbon cable measures the intensity of the x-ray luminescence radiation emitted by the respective conductor path, the detector being shielded against the x-ray radiation.

2. Method according to claim 1, characterised in that the extension of the area of impingement of the x-ray beam on the flat ribbon cable transversely to the latter is small in relation to the width of the conductor path and the insulation between the conductor paths, and the x-ray beam is moved over the flat ribbon cable transversely to the longitudinal direction the flat ribbon cable

3. Method according to claim 2, characterised in that the x-ray beam is moved and the flat ribbon cable remains quasi stationary in the transverse direction, and the detector is moved with the x-ray beam.

4. Method according to claim 1, characterised in that the x-ray beam is brought into focus transversely to the flat ribbon cable or is limited in its extension by means of a collimator.

5. Method according to claim 1, characterised in that the size of the sensitive area of the detector is a severalfold of the area of impingement of the x-ray beam on the flat ribbon cable.

6. Method according to claim 1, characterised in that the intensity of the x-ray radiation is measured on the opposing side of the flat ribbon cable with the aid of an x-ray detector.

7. Method according to claim 6, characterised in that the position of the edges of the flat ribbon cable is determined with the x-ray detector.

8. Method according to claim 6, characterised in that the position of the conductor paths in the flat ribbon cable is determined with the x-ray detector.

9. Method according to claim 6, characterised in that the thickness of the insulation between adjacent conductor paths and in the edge region of the flat ribbon cable, respectively, is determined with the aid of the x-ray detector.

10. Method according to claim 6, characterised in that the total thickness of the flat ribbon cable is determined in the region of the conductor paths.

11. Method according to claim 6, characterised in that the position of the side edges of the flat ribbon cable is determined with the aid of a separate edge detector.

12. Device for the determination of the thickness of the insulation of a flat ribbon cable in the region of the metallic conductor paths, characterised in that an x-ray source (22) is provided, the x-ray beam (30) of which is directed to one side of the flat ribbon cable (10), a detector (26) sensitive for x-ray luminescence being disposed on the same and/or the opposing side of the flat ribbon cable (10), said detector being connected with an evaluation equipment for the evaluation of the intensity of the luminescence radiation.

13. Device according to claim 12, characterised in that the detector (26) sensitive for x-ray luminescence is disposed on the same side of the flat ribbon cable as is the x-ray source and that a metallic plate or sheet (80) is disposed on the opposing side of the flat ribbon cable.

14. Device according to claim 12, characterised in that between the x-ray source (22) and the flat ribbon cable (10) means are provided for the generation of an x-ray beam (30) of small extension in the direction transverse to the flat ribbon cable (10).

15. Device according to claim 14, characterised in that the means are formed by a collimator or an equipment for bringing into focus the x-ray radiation.

16. Device according to claim 12, characterised in that the x-ray beam irradiates a larger area of the flat ribbon cable und that means are disposed between the flat ribbon cable and the detector through which the reception area of the detector, seen in the direction transverse to the flat ribbon cable, views only a small region of the flat ribbon cable at a time.

17. Device according to claim 12, characterised in that a conveying equipment moves the flat ribbon cable (10) forward in a first direction and that a support (20) for the x-ray source (22) is moved transversely to the first direction in a second direction, and that a support for the detector is moved synchronously with the first support (20).

18. Device according to claim 12, characterised in that the x-ray source (22) and the detector (26) are attached to a common support (20), the x-ray beam and the detector (26) being formed such that the sensitive area of the detector (26) receives only such x-ray luminescence radiation which, seen in the direction transverse to the

flat ribbon cable, origins from very narrow area portions of the flat ribbon cable at a time.

19. Device according to claim 15, characterised in that the collimator or the equipment for bringing into focus are formed such that the extension of the x-ray beam (30) in the longitudinal direction of the flat ribbon cable (10) is a severalfold larger than transversely to it.

20. Device according to claim 12, characterised in that an x-ray detector (24) is disposed on the side of the flat ribbon cable opposing the x-ray source (22), said detector being connected with an evaluation equipment for the evaluation of the intensity of the x-ray radiation.

21. Device according to claim 20, characterised in that the x-ray detector (24) has a point-shaped reception area in the scanning direction.

22. Device according to claim 20, characterised in that the x-ray detector is a line sensor.

23. Device according to claim 12, characterised in that a separate edge detector is provided.